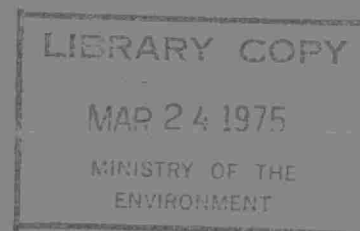


OPERATING SUMMARY

TILLSONBURG

WATER POLLUTION CONTROL PLANT

LABORATORY & FIELD DIVISION
MINISTRY OF THE ENVIRONMENT



LAC

1973

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REGIONAL OPERATIONS
J. Barr

REGIONAL OPERATIONS DIVISION

DIRECTOR, SOUTHWESTERN REGION
D. McTavish

MANAGER, UTILITY OPERATIONS
A. Ladbrooke

TILLSONBURG

WATER POLLUTION CONTROL PLANT

MINISTRY OF THE ENVIRONMENT

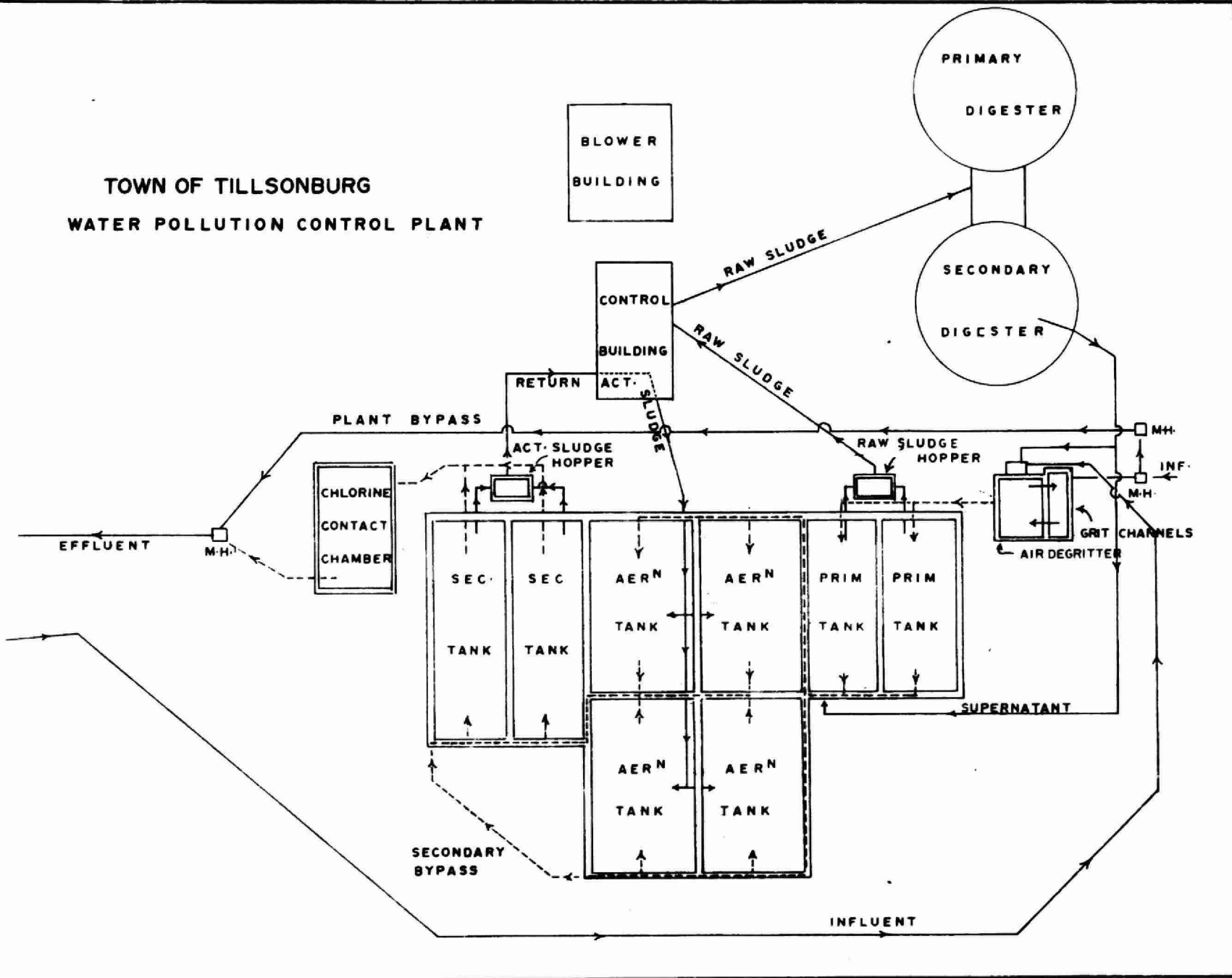
1973 ANNUAL OPERATING SUMMARY

prepared by
Plant Performance Unit
TECHNICAL SERVICES BRANCH
T. Cross, Director

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TOWN OF TILLSONBURG
WATER POLLUTION CONTROL PLANT



DESIGN DATA

Project: Town of Tillsonburg WPCP
Project No.: 1-0137-67
Design Flow: 1.8 MGD
BOD: Raw Sewage - 235 mg/l
Removal 95%
SS: Raw Sewage - 250 mg/l
Removal 95%

PRIMARY TREATMENT

AIR DEGRITTER:

Size, 13' x 15' x 10' swd
Volume: 12,160 I. Gal. Detention: 9.7 min.

PRIMARY SEDIMENTATION:

Two, Size 50.3' x 10' x 8' swd
One, Size 50' x 20' x 8.25' swd
Volume: (total) 102,000 I. Gal.
Detention: 1.3 hours
Overflow Rate: 900 gal/ft²/day

SECONDARY TREATMENT

AERATION TANKS:

Type: Diffused Air
Size: Four, size 50' x 30' x 13' swd
Volume (total): 487,000 I. Gal.
Detention: (total) 6.5 hours

SECONDARY SEDIMENTATION:

Size: Two, size 50.3' x 10' x 12.25' swd
One, size 65' x 20' x 12.5' swd
Volume (total): 178,000 I. Gal.
Detention (total) 2.4 hr.
Overflow Rate: 780 gal/ft²/day

CHLORINATION:

Chlorinator: Type: W & T A731
Size: 400 lb/day

CHLORINE CONTACT CHAMBER:

Size: 21' x 20' x 9.2' swd
Volume: 24,000 I. Gal. Detention: 19 min.

OUTFALL - to creek

SLUDGE HANDLING:

Digestion System : Two-Stage
Primary Digester: 45' dia. x 20' swd.
Volume: 36,000 ft³
Secondary Digester: 45' dia. x 20' swd
Volume: 36,000 ft³

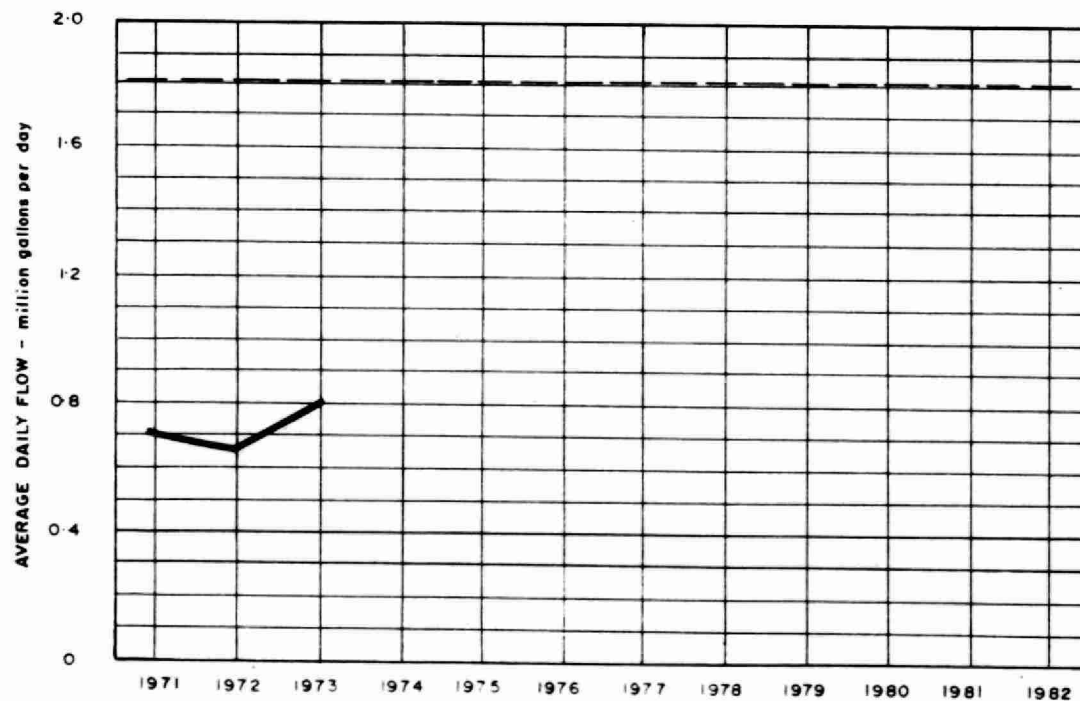
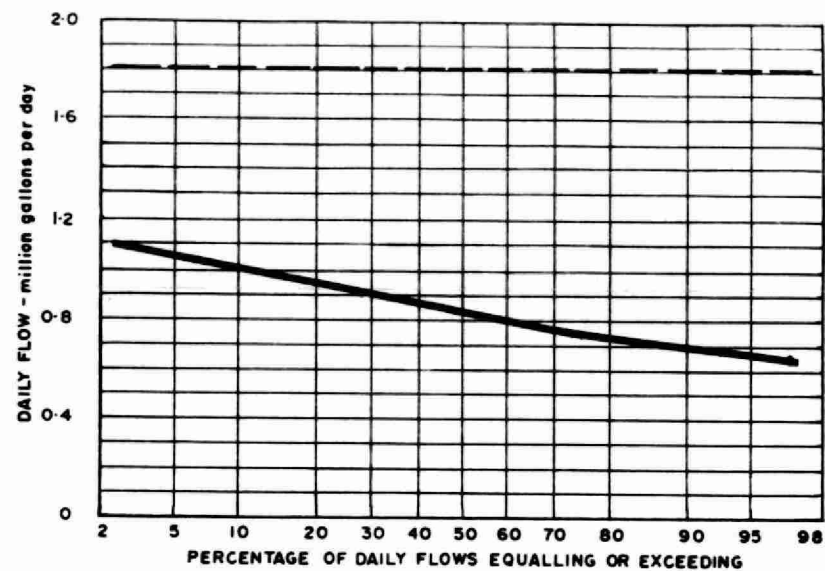
PUMPING STATION:

John Pound Street Pumping Station

Capacity: 2.7 MGD plus 50% standby

Screening and Comminution.

PROCESS DATA FLOWS

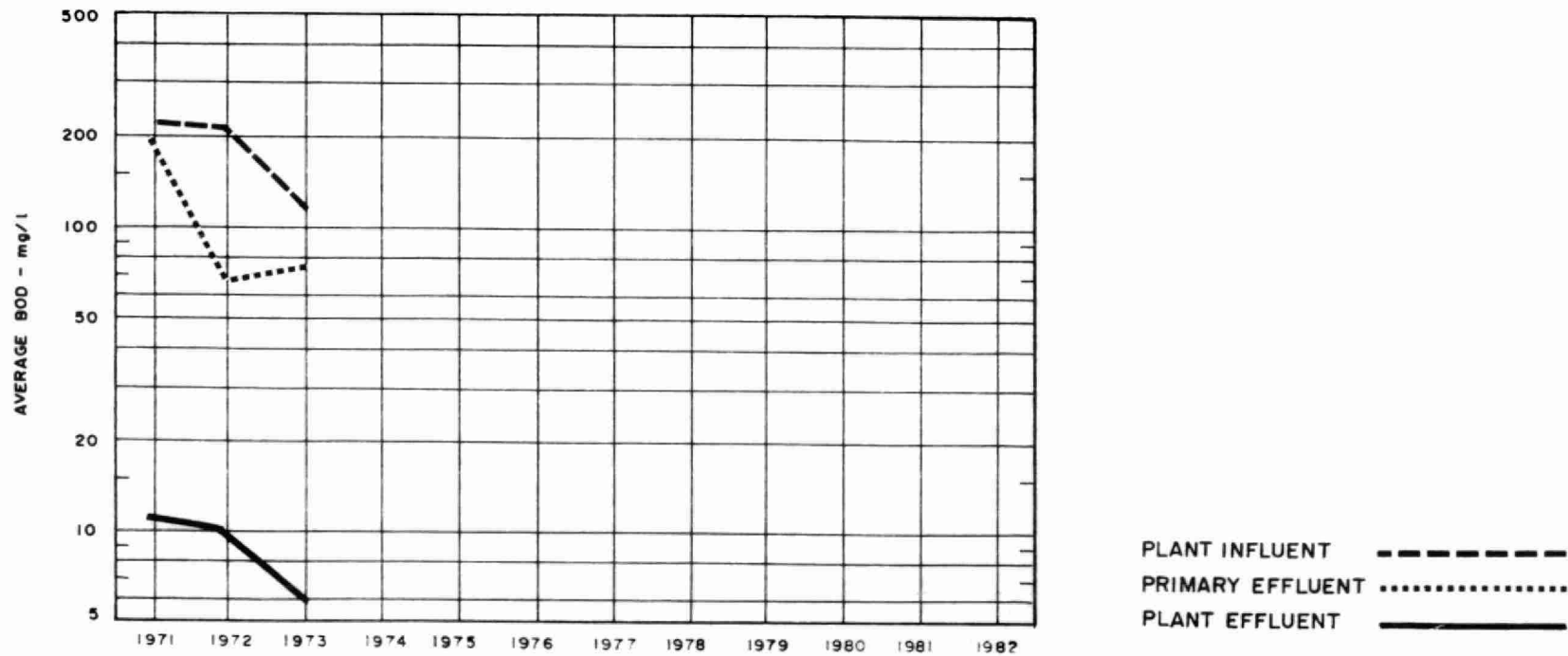
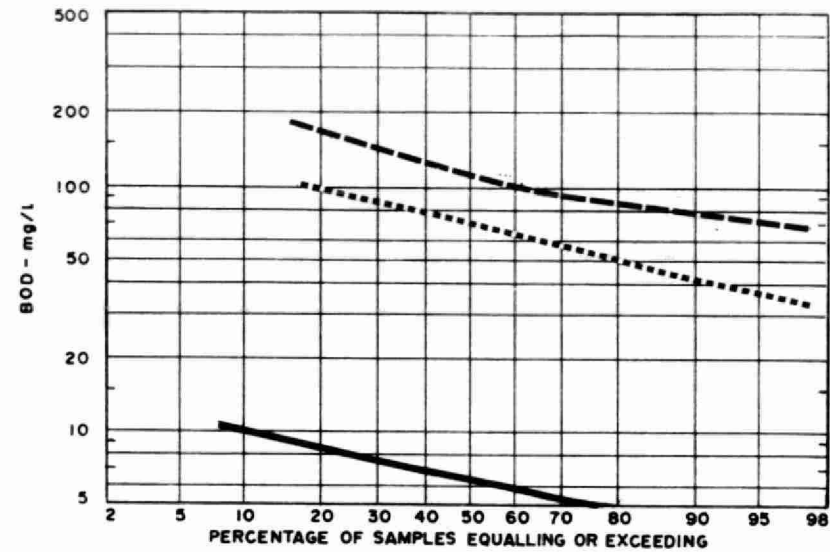


DESIGN CAPACITY — — — — —

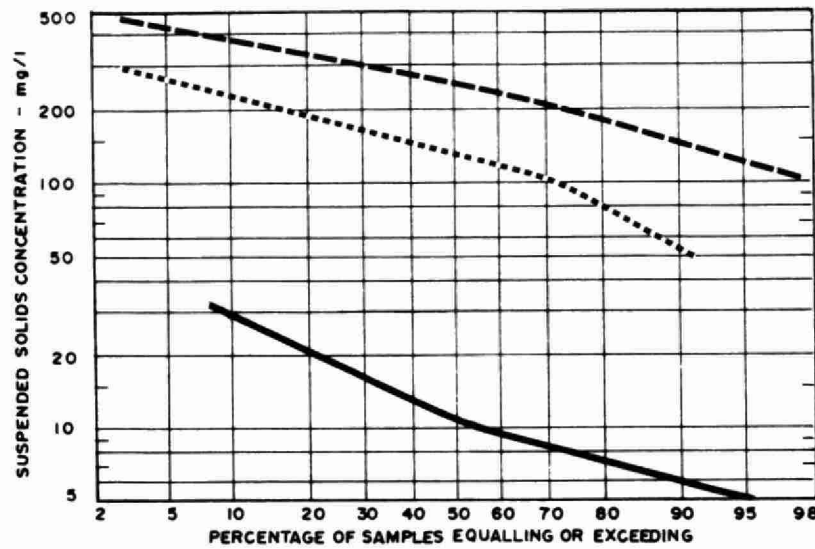
PLANT PERFORMANCE

MONTH	FLOWS			BIOCHEMICAL OXYGEN DEMAND				SUSPENDED SOLIDS				PHOSPHORUS	
	TOTAL FLOW	AVERAGE DAY	MAXIMUM DAY	INFLUENT	EFFLUENT	REDUCTION		INFLUENT	EFFLUENT	REDUCTION		INFLUENT	EFFLUENT
	million gallons	mil. gal	mgd	mg/l	mg/l	%	10 ³ pounds	mg/l	mg/l	%	10 ³ pounds	mg/l P	mg/l P
JAN	23.6	0.76	0.88	120	7	94	27	268	13	95	60	9.4	5.9
FEB	21.8	0.78	0.88	130	6	95	27	197	18	91	39	7.5	0.4
MAR	31.8	1.02	1.38	90	6	93	27	327	12	96	100	2.8	0.2
APR	28.5	0.95	1.11	75	4	95	20	245	10	96	67	4.8	2.2
MAY	25.2	0.81	0.90	70	8	89	16	230	8	96	56	4.6	1.4
JUNE	23.9	0.80	0.91	120	6	95	27	299	6	98	70	7.0	1.2
JULY	22.4	0.72	0.82		10			301	5	98	66		0.8
AUG	22.0	0.71	0.79	180	3	98	39	280	27	90	55	6.2	0.6
SEPT	20.2	0.67	0.74	170	5	97	33	256	13	95	49	7.2	0.7
OCT	22.6	0.73	0.98					406	21	95	87		
NOV	24.3	0.81	0.94	140	7	95	32	226	22	90	49	3.6	0.7
DEC	26.3	0.85	0.99					227	23	90	54		
TOTAL	292.6	-	-	-	-	-		-	-	-	752	-	-
AVG.		0.80	MAXIMUM 1.38	122	6	95	28	271	15	94	63	5.9	1.4
No. of Samples	-	-	-	9	10	-	-	61	62	-	-	9	10

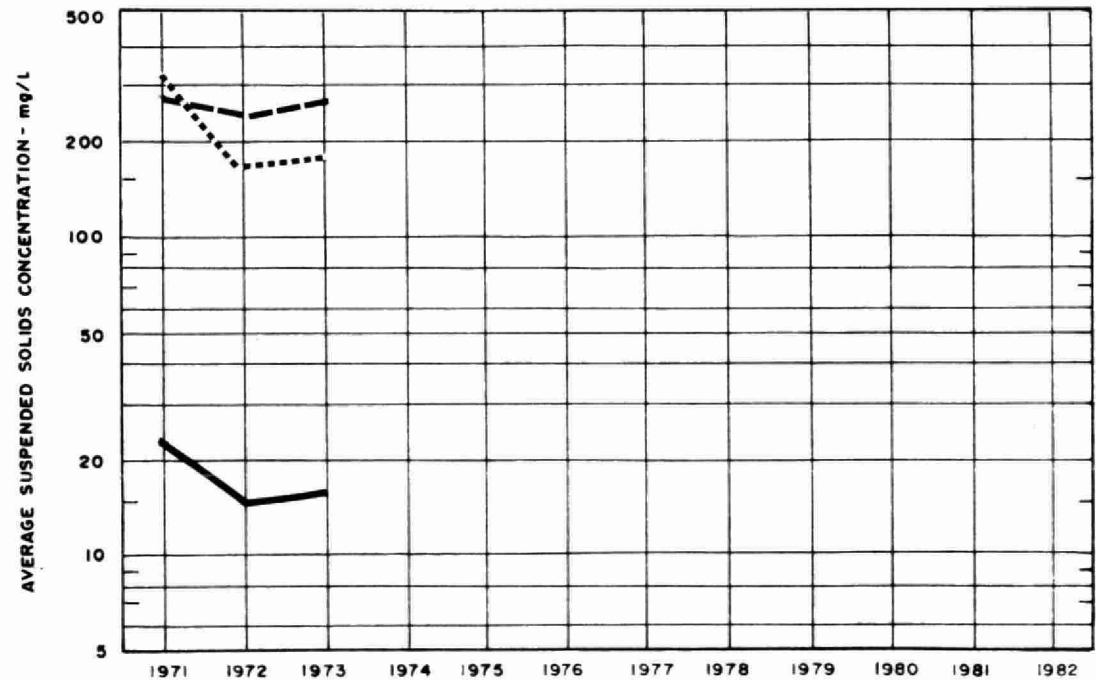
BIOCHEMICAL OXYGEN DEMAND



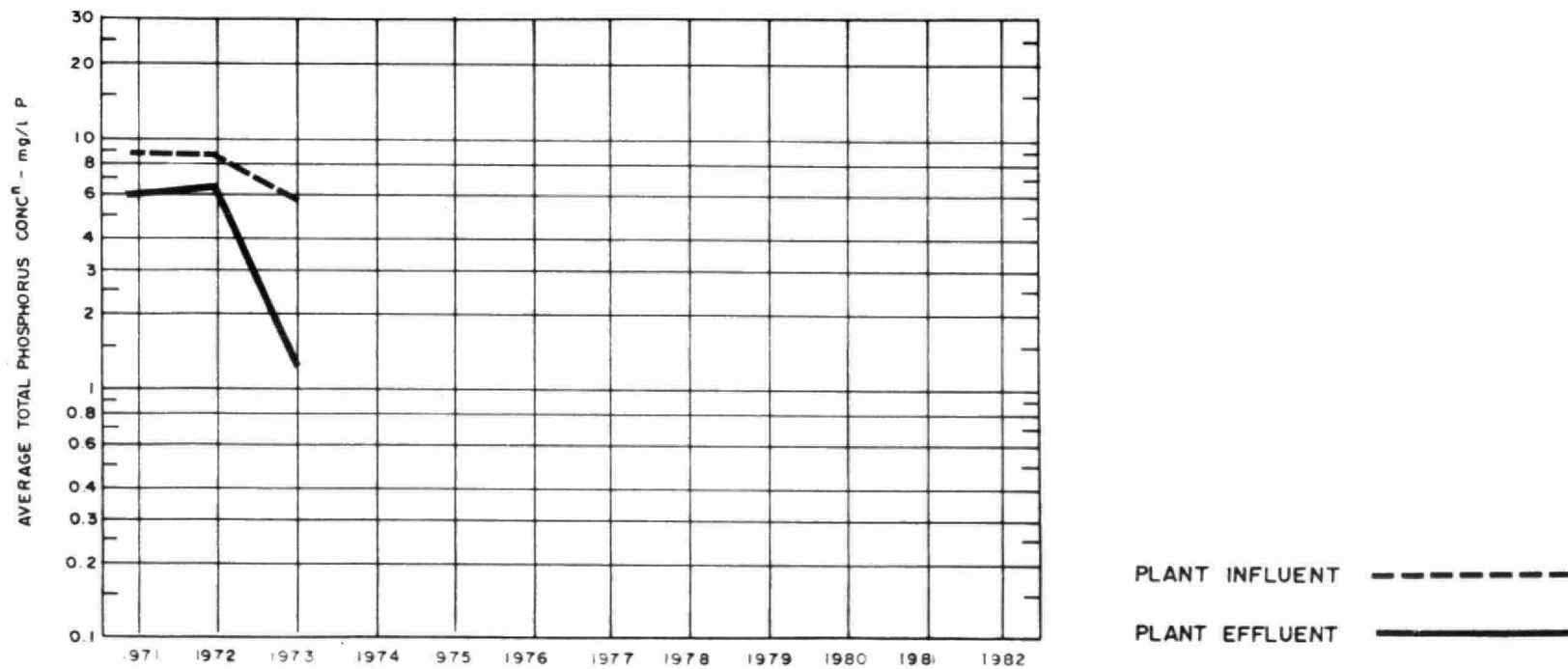
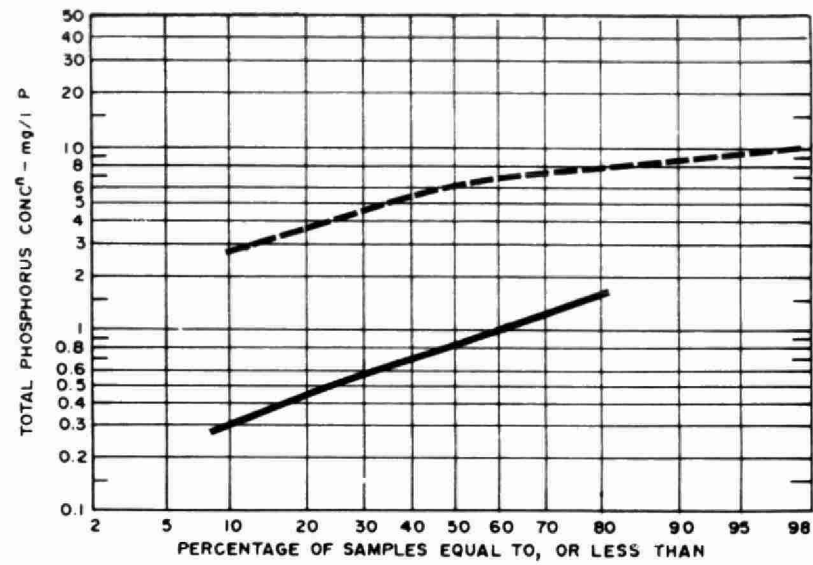
SUSPENDED SOLIDS



PLANT INFLUENT - - - - -
 PRIMARY EFFLUENT
 PLANT EFFLUENT _____

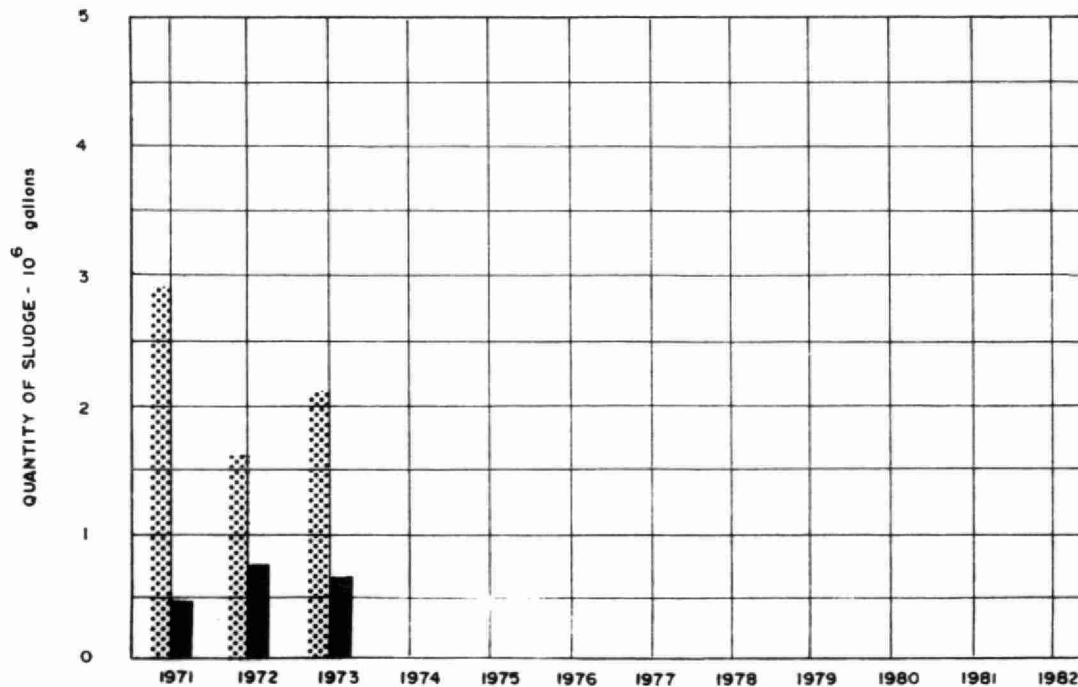
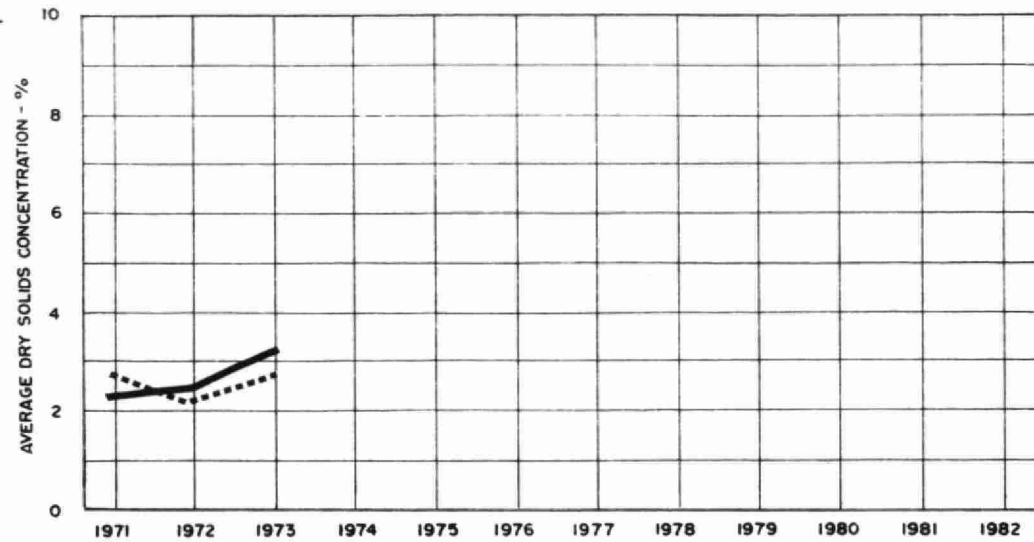


PHOSPHORUS



DIGESTION

RAW SLUDGE
DIGESTED SLUDGE —————



RAW SLUDGE TO DIGESTER
DIGESTED SLUDGE REMOVED

TREATMENT DATA

MONTH	GRIT	CHLORINATION		PRIMARY EFFLUENT		AERATION			SLUDGE DIGESTION and DISPOSAL							
	QUANTITY REMOVED cubic feet	CL ₂ USED pounds	AVG. DOSE mg/l	BOD mg/l	SUSPENDED SOLIDS mg/l	MLSS CONC mg/l	F/M day ⁻¹	AIR 1000 ft ³ lb BOD	RAW SLUDGE			DIGESTED SLUDGE			SUPER- NATANT T.S. %	AMOUNT HAULED cubic yards
									QUANTITY 10 ³ gallons	TOTAL SOLIDS %	VOL. SOLIDS %	QUANTITY 10 ³ gallons	TOTAL SOLIDS %	VOL. SOLIDS %		
JAN	21	654	2.8	85	162	2380	0.05	2.5	145	1.8		0	2.4		0.3	0
FEB	58	641	2.9	110	95	2190	0.07	1.9	266	2.1		74	2.5		1.8	437
MAR	34	628	2.4	100	577	2010	0.09	1.6	163	3.1		61	2.8		0.5	365
APR	28	688	2.4	40	108	2260	0.03	4.5	167	3.7		71	4.2		0.1	423
MAY	50	579	2.3	55	140	2360	0.03	4.0	165	2.6		60	2.9		0.1	357
JUNE	42	312	1.3	46	110	2460	0.03	4.8	157	5.5		52	3.0		0.3	312
JULY	38	498	2.2	60	142	2580	0.03	4.2	139	1.2		57	3.9		0.1	338
AUG	34	533	2.4	50	208	2760	0.02	4.6	151	2.4		61	3.3		0.1	364
SEPT	33	519	2.6	60	130	2280	0.03	4.1	187	2.9		48	3.7		0.2	286
OCT	32	491	2.2		216	2370			200	2.0		49	2.8		0.1	293
NOV	37	554	2.3	60	144	2370	0.04	3.5	158	2.7		48	3.9		0.1	286
DEC	23	613	2.3		114	2400			152	3.6		41	4.3		0.2	247
TOTAL	430	6710	—	—	—	—	—	—	2050	—	—	622	—	—		3708
AVG.	1.5 cu ft/mil gal	559	2.3	77	179	2370	0.04	3.6	171	2.8		57	3.3		0.3	337

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